

I claim:

1. A battery-locking mechanism to secure a battery having an upper end, in a portable electronic device, comprising:
 - a battery-receiving compartment having an upper wall and a lower wall, an aperture being defined through the upper wall;
 - a plurality of partition walls defining a receptacle located outside the battery-receiving compartment and in communication with the aperture, the receptacle being divided into a first notch and a second notch; and
 - a spring element including a base portion and an elastic portion, the base portion being securely received in the first notch of the receptacle, the elastic portion being received in the second notch, and a free end of the elastic portion substantially extending to the aperture;wherein a tab protrudes from the upper end of the battery, extending into the aperture when the battery is arranged into the battery-receiving compartment, the spring element then presses against the tab of the battery.
2. The battery-locking mechanism of claim 1, wherein the base portion comprises a first panel and a second panel and the first panel is connected with the second panel at an end thereof.
3. The battery-locking mechanism of claim 2, wherein a nose-shaped projection is formed on an outside surface of the first panel.
4. The battery-locking mechanism of claim 3, wherein the elastic portion extends from a bottom end of the second panel.
5. The battery-locking mechanism of claim 4, wherein the elastic portion comprises a first folded part, a second folded part, and a contact part.
6. The battery-locking mechanism of claim 5, wherein the contact part has a semi cylinder shape which is positioned adjacent to the corresponding aperture.
7. The battery-locking mechanism of claim 6, wherein a shoulder extends from a

bottom of the second notch and the first folded part sits on the shoulder.

8. The battery-locking mechanism of claim 1, wherein the battery has a lower end and a second tab protrudes from the lower end.

9. The battery-locking mechanism of claim 8, wherein a second aperture is defined in the lower wall of the battery-receiving compartment.

10. The battery-locking mechanism of claim 9, wherein the second tab is received in the second aperture when the battery is secured in the battery-receiving compartment.

11. A battery-locking mechanism to secure a battery having an end in a portable electronic device, comprising:

 a battery-receiving compartment being defined by several sidewalls and a bottom, at least an aperture being defined through one of the sidewalls; and

 at least an elastic securing means, comprising a fixed end portion and a free end portion, the elastic securing means being received within a housing of the portable electronic device with the free end portion substantially extending to the aperture;

 wherein a tab protrudes from the end of the battery, extending into the aperture when the battery is arranged into the battery-receiving compartment, the free end portion of the elastic securing means then presses against the tab of the battery;

 wherein the fixed end portion comprises a first panel and a second panel, the first panel is integrally and flexibly formed with the second panel.

12. The battery-locking mechanism of claim 11, wherein a nose-shaped projection is formed on an outside surface of the first panel.

13. The battery-locking mechanism of claim 12, wherein the free end portion extends from a bottom end of the second panel.

14. The battery-locking mechanism of claim 13, wherein the free end portion comprises a first folded part, a second folded part, and a contact part.

15. The battery-locking mechanism of claim 14, wherein a receptacle is defined

outside the battery-receiving compartment and in communication with the aperture.

16. The battery-locking mechanism of claim 15, wherein the receptacle is divided into a first notch and a second notch perpendicular to the first notch.

17. The battery-locking mechanism of claim 16, wherein the fixed end portion of the elastic securing means is received in the first notch.

18. The battery-locking mechanism of claim 17, wherein the free end portion of the elastic securing means is received in the second notch.

19. The battery-locking mechanism of claim 18, wherein a shoulder extends from a bottom of the second notch and the first folded part of the elastic securing means sits on the shoulder.

20. A battery-locking mechanism assembly comprising:

a battery receiving compartment defining a receiving space between two opposite sidewalls;

a receiving slot and a receiving groove respectively defined in said two opposite sidewalls;

a spring located in said receiving slot;

a battery with a main body compliantly received in said receiving space;

a first protrusion formed on one end of said main body, a portion of said first protrusion extending into the receiving slot and urged by said spring toward the other end of said main body; and

a second protrusion formed on the other end of the main body and urged by said spring to be received in the receiving groove.

21. The assembly of claim 20, wherein said second protrusion is in form of wedge so that the battery is allowed to be assembled into the battery receiving compartment via downward rotation about an axis defined by said first protrusion located in the receiving slot.